

a panel of Spanish oncologists and from the literature. Unit costs were derived from Spanish databases (€ March 2006). Annual discount rate: 3.5% (costs and utilities). Sensitivity analyses for subpopulations, 3 years results (Weibull and Loglogistic distributions) and probabilistic (Monte Carlo) were performed. **RESULTS:** After 2 years more QALY per patient were obtained with ERL (0.24) than with DOC (0.23) and BSC (0.18). No differences versus PEM were observed. The total cost per patient was lower with ERL (€17,838) than with DOC (€20,392; €–2554) or PEM (€27,317; €–9479) and higher than with BSC (€8198; €+9640). ERL was the “dominant” treatment (more efficacy and lower costs) versus DOC and resulted in a cost saving versus PEM. Additional cost per QALY or life year gained with ERL versus BSC: €160,667 and €56,706, respectively. The sensitivity analysis confirmed the robustness of the base case analysis. If 1000 NSCLC patients were treated with ERL, the annual saving for NHS (substitution rates: 5%–65%) would range between €123,000–€1,600,000 (DOC replacement) and €448,000–€5,831,000 (PEM replacement). **CONCLUSIONS:** According to this model, advanced NSCLC treatment with ERL is more cost-effective than with DOC and PEM, with savings for the NHS.

PCN27

COST-EFFECTIVENESS AND COST-UTILITY OF FENTANYL TTS (DUROGESIC® 25, 50) VS. SR/IR ORAL MORPHINES IN THE MANAGEMENT OF CHRONIC CANCER PAIN

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OBJECTIVES: Chronic cancer pain has a devastating impact on quality of life. This leads to an increase in healthcare services utilization. The objective of the present study is to estimate the cost-effectiveness and cost-utility quotients of Fentanyl TTS treatment related to SR oral Morphine or IR oral Morphine in patients with moderate-severe chronic cancer pain. **METHODS:** Designed from the perspective of the health care provider, with a 12 weeks horizon and a pharmacoeconomic decision making model (decision tree). Cost-effectiveness relationship estimates was \$15 per day of pain control (DPC) for Fentanyl TTS, \$.3 per DPC for sustained-release Morphine and \$6.4 per DPC for immediate release Morphine. Cost-utility relationship estimates was \$23.1 per Quality Adjusted DPC (QALD) for Fentanyl TTS, \$18.9 per QALD for sustained-release Morphine and \$53.6 per QALD for immediate release Morphine. This means that the cost of a QALD when treating patients with Fentanyl TTS is similar that patients treated with SR Morphine and less than half of patients treated with IR Morphine. **RESULTS:** The incremental cost-effectiveness relationship (ICER) for Fentanyl TTS vs. SR Morphine was of \$20.2 per extra DPC, while the ICER for Fentanyl TTS vs. IR Morphine was \$26.1 per extra QALD. The incremental cost-utility relationship (ICUR) for Fentanyl TTS vs. Sustained-release Morphine was \$24.9 per extra QALD and of \$19.2 per extra QALD for Fentanyl TTS vs. IR Morphine. The pharmacoeconomic model constructed for the analysis was duly validated through a one way sensitivity analysis. **CONCLUSIONS:** We concluded, compared to oral Morphines, Fentanyl TTS is a cost-effective choice for the treatment of moderate-severe cancer pain. The present analysis allows to draw the conclusion that the better efficiency of this new transdermal pharmaceutical form of Fentanyl, is mainly due to an improvement in quality of life.

PCN28

SHOULD FOTEMUSTINE BE USED AS THE FIRST LINE TREATMENT

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OBJECTIVE: Dacarbazine is routinely used as the first line treatment of disseminated malignant melanoma with brain metastases in Poland. A head-to-head randomized controlled trial (RCT) showed a clinical superiority of fotemustine over dacarbazine in this indication. At the same time patients' access to many innovative medicines in Poland is limited because of budgetary constraints. Even if an innovative medicine is more effective and cost-effective, it is not applied since it is more expensive for the health care budget. The main objective of this analysis is to verify whether an administration of fotemustine is economically justified for the National Health Fund (NHF)—the public payer in Poland. **METHODS:** A cost-minimization analysis was carried out from the NHF point of view. Direct medical costs were divided according to accounting standards into two groups: cost of drugs and cost of hospitalization required in order to administer the drugs. The majority of unit prices used in calculations were derived from the official price list of the Pomeranian Sickness Fund (which is the NHF part now). Following clinical standards and the length of the RCT the time horizon is 26 weeks. **RESULTS:** The cost of fotemustine administered to one patient (€4700) is higher than the cost of dacarbazine (€676) by €4024. The cost of hospitalization necessary to administer dacarbazine amounts to €5884 and is higher than cost for fotemustine (€1284) by €4600. The total cost in fotemustine group amounts to €598 and was lower than cost of dacarbazine (€6560) by €576. **CONCLUSION:** Substitution of dacarbazine with fotemustine in the treatment of disseminated malignant melanoma with brain metastases is a good alternative not only for Polish patients (as clinically better) but also for the Polish NHF (as cost-saving). Ex. rate 1 € = 3.98 PLN.

PCN29

ECONOMIC ADVANTAGES AND TIMESAVING OF USING OXALIPLATIN CONCENTRATED SOLUTION VERSUS OXALIPLATIN LYOPHILISED POWDER FOR INFUSION

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OBJECTIVES: Oxaliplatin solution form is a new and safer formulation of oxaliplatin avoiding the reconstitution step during cytotoxic preparation. The main objective was to assess the economic impact using oxaliplatin concentrated solution compared with the lyophilised powder form from the hospital pharmacy point of view. **METHODS:** Due to the equivalent efficacy between the 2 formulations, a cost-minimisation analysis with a hospital perspective was performed comparing the solution versus the powder. A single-centre observational study was conducted in a French Cancer Centre. The cytotoxic preparations were assessed using the powder in a first time and the solution form in a second time. The same staff member manipulated both preparations in order to avoid any bias. Two independent observers collected the results from the 30 manipulations. The first endpoint assessed was preparation time. Secondary endpoint was overall cost associated with this preparation, which included costs associated to preparation time, material and cytotoxic waste management. **RESULTS:** The reconstitution step was avoided using the solution form. The time saved with the solution form versus the lyophilised powder was 139 seconds per preparation. The overall avoided cost represented €1.04 per preparation using oxaliplatin solution form. This total cost could

be broken up into three components: costs associated to the preparation time (71%), material costs (27%) and the waste management costs (2%). For 100 patients treated receiving 10 cycles of chemotherapy, this represents a total saving of €1040. **CONCLUSIONS:** Using oxaliplatin concentrated solution form represented a time saving and an economic benefit for the hospital pharmacist. In addition, this new solution form increases the safety aspects by reducing risk of preparation errors and risk of cytotoxic drug exposure for manipulators. It would be interesting to confirm those results in a multi-centric analysis.

PCN30

ECONOMIC EVALUATION OF FOLFOX4 VERSUS FOLFOX7 WITH OXALIPLATIN STOP-AND-GO IN ADVANCED COLORECTAL CANCER PATIENTS

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OBJECTIVES: OPTIMOX1 randomised study demonstrated that FOLFOX7 with oxaliplatin stop-and-go could be safely used and achieved the same efficacy results as standard treatment FOLFOX 4 in advanced colorectal cancer. The median progression free-survival and survival times were 9.0 and 19.3 months, respectively in FOLFOX4 arm compared with 8.7 and 21.2 months, respectively in FOLFOX7 arm ($p = \text{not significant}$). FOLFOX 7 stop and go strategy was associated with reduced risk of grade 3 to 4 toxicity [Tournigand, JCO 2006;24:394]. The main objective was to perform an economic evaluation of FOLFOX7 stop-and-go compared with FOLFOX4 regimen in advanced colorectal cancer. **METHODS:** A cost-minimisation analysis has been conducted based on the efficacy results of OPTIMOX1 study. The perspective was that of the third party payer and included only direct medical costs: chemotherapy, hospitalisation and side effects management. The horizon time was from inclusion until patient death. Sensitivity analyses were performed on drug costs and full/day hospitalisation rates. **RESULTS:** Hospitalisation costs per patient were the main driver for cost. Hospitalisation represented €6595 in FOLFOX7 arm vs. €10,522 in FOLFOX4 arm reflecting the decrease of number of hospitalisation days ($p < 0.001$). Chemotherapy costs per patient were comparable in each treatment arm despite higher doses of oxaliplatin with FOLFOX7 (€6870) compared to FOLFOX4 (€7047) ($p = 0.30$). The cost of side effects management appeared very low in both groups, compared to hospitalisation and drug costs with €271 and €382 ($p = 0.11$) for FOLFOX4 and FOLFOX7 respectively. The mean total cost per patient was higher in FOLFOX4 arm than in FOLFOX7 arm with €17,841 versus €13,847 respectively ($p < 0.001$). **CONCLUSION:** The FOLFOX7 regimen with intermittent oxaliplatin treatment (stop-and-go) is cost saving compared with FOLFOX4 regimen.

PCN31

A COST MINIMISATION ANALYSIS OF NAVELBINE-CISPLATIN VERSUS GEMCITABINE-CISPLATIN IN ADVANCED NON-SMALL CELL LUNG CANCER IN POLAND

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OBJECTIVES: To compare costs of navelbine-cisplatin (PN) versus gemcitabine-cisplatin (PG) recommended in non small cell lung cancer (NSCLC) treatment in Poland. **METHODS:** Data of health outcome, adverse event rates, specification for each regimen and the number of cycles derived from the pub-

lished head-to-head clinical trial (Martoni & co. *European Journal of Cancer* 41, s.81-92, 2005). Only direct medical cost were assessed such as diagnostic tests, cytostatics and additional medication used and hospitalization (cost of blood tests and antiemetics included). The payer's perspective were chosen. Information of value of health resources consumed were derived from the medical valuation system used by National Fund of Health in 2006. All cost were in polish zloty (in 2006: 1 euro = 3,95 zloty). **RESULTS:** Because there were no statistically significant differences in effectiveness between analyzed regimens, the cost-minimisation analysis were performed. The average total costs per patient was 10,452 zł for PN and 31,478 zł for PG. However in both regimens the main part of total costs were cost of gemcitabine (60%) or navelbine (55%), the nominal value amount 5668 zł for navelbine and 18,860 zł for gemcitabine. In PG scheme 7% were cost of hospitalization and 4.5% cost of ADR treatment. In PN scheme 21,5% were cost of hospitalization and 15.4% cost of ADR treatment. The high cost of ADR management for PN were caused by cost of neutropenia treatment. **CONCLUSIONS:** Despite of high percentage of ADR management in PN, our analysis showed that total cost of chemotherapy with this scheme is three times less than chemotherapy with PG. So the PN regimen should be recommended as cost saving for patients with advanced NSCLC, specially as a palliative chemotherapy.

PCN32

COST-MINIMIZATION ANALYSIS OF ORAL VS. IV FLUDARABINE FOR THE TREATMENT OF B-CELL CHRONIC LYMPHOCYTIC LEUKEMIA (B-CLL) IN BRAZIL

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OBJECTIVES: The oral formulation of fludarabine phosphate is equivalent to the IV formulation in terms of clinical efficacy, in previously untreated B-CLL. The objective of this evaluation is to perform a cost minimization analysis. **METHODS:** To conduct this evaluation the following parameters were considered: acquisition value of the IV and oral fludarabine by the public health system (PHS); resources consumption for IV fludarabine application; toxicity profile of the two presentations based on literature data; adverse events management and their resource consumption according to the Inca; PHS reimbursement for the patients hospitalized with LCC; an index patient with 1.69 m² body surface area and 60 years old; oral and IV fludarabine dose of 40 mg/m² and 25 mg/m² respectively. The treatment cost of a given adverse event was considered to be the same irrespectively to the fludarabine presentation. **RESULTS:** Although oral fludarabine presented a lower cost per mg in comparison to the IV formulation (R\$9.85 vs. R\$10.20) the total drug cost for the whole treatment is greater for the oral formulation than for IV (R\$20,676.60 vs. R\$15,300.00). However considering that the administration cost per cycle of the IV formulation is R\$956,80 the overall cost of IV fludarabine becomes higher than the oral formulation (R\$22,150.78 vs. R\$23,160.31). The cost of the treatment of each considered adverse event for oral and IV fludarabine were respectively: infection (339.72 vs. 519.99); neutropenia (962.79 vs. 1187.75), anemia (106.02 vs. 222.74), diarrhea (11.97 vs. 0.00), nausea (2.25 vs. 7.11) and thrombocytopenia (52.47 vs. 182.05). Overall IV fludarabine costs 4.56% more than its oral formulation. **CONCLUSIONS:** This preliminary analysis shows that oral fludarabine has lower total cost per patient with similar efficacy to IV fludarabine with lower adverse events and administration costs. A cost effectiveness analysis should confirm these promising data.